

Claims:

1. A backsize composition comprising
pre-crosslinked film forming polymer derived from materials comprising
monofunctional monomer and
5 multifunctional pre-crosslinking monomer containing at least two
reactive groups,
thickener to stabilize the backsize composition, and
release agent.
- 10 2. The composition of claim 1 wherein the composition is an aqueous backsize
composition that is stable for more than a week when stored at 25C.
3. The composition of claim 2 comprising from 0.1 to 3 weight percent thickener
based on the total weight of solids.
- 15 4. The composition of claim 2 wherein the thickener is selected from the group
consisting of a cellulosic thickener, a polyacrylate thickener, and mixtures thereof.
5. The composition of claim 2 wherein the thickener is selected from the group
20 consisting of hydroxyethylcellulose and sodium polyacrylate.
6. The composition of claim 1 wherein the dried composition exhibits less than a
250 percent weight gain in toluene after 24 hours.
- 25 7. The composition of claim 1 wherein the film forming polymer comprises
monomeric units derived from 0.5 to 5 weight percent multifunctional monomer based on
total weight of monomer.
8. The composition of claim 1 wherein
30 monofunctional monomer is selected from the group consisting of vinyl
acetate, butyl acrylate, and a combination thereof, and

thickener is selected from the group consisting of a cellulosic thickener, a polyacrylate thickener, and mixtures thereof.

9. The composition of claim 1 comprising release agent comprising a polysiloxane
5 block copolymer.

10. The composition of claim 1 wherein the composition is an aqueous backsize
composition comprising
50 to 94.5 weight percent film forming polymer comprising monomeric
10 units derived from monomers comprising vinyl acetate and butyl acrylate,
5 to 60 weight percent release agent, and
0.1 to 3 weight percent thickener selected from the group consisting of a
cellulosic thickener, a polyacrylate thickener, and mixtures thereof,
based on the weight of total solids.

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11. An aqueous backsize composition comprising
pre-crosslinked film forming polymer derived from materials comprising
monofunctional monomer and
multifunctional pre-crosslinking monomer containing at least two
20 reactive groups,
thickener selected from the group consisting of a polyacrylate thickener, a
cellulosic thickener, and mixtures thereof, and
release agent.

25 12. The composition of claim 11 comprising thickener selected from the group
consisting of hydroxyethylcellulose and sodium polyacrylate.

13. A method of preparing film forming polymer, the method comprising
providing monomer comprising monofunctional monomer and
30 multifunctional pre-crosslinking monomer containing at least two reactive groups,
subjecting a portion of the monomer to polymerization,

adding thickener after polymerization of a portion of monomer, and
polymerizing a further portion of monomer following addition of the
thickener.

5 14. The method of claim 13 wherein the thickener is selected from the group
consisting of a cellulosic, a polyacrylate, and mixtures thereof.

15. The method of claim 13 wherein thickener is added at a time between about 1/3 to
about 2/3 of the total time of polymerization.

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16. The method of claim 15 wherein the polymerization reaction occurs with addition
of monomer over a period in the range from about 150 minutes and about 250 minutes,
and thickener is added at a time after about to 90 minutes of that period.

15 17. The method of claim 15 wherein the polymerized film forming polymer is stable
for more than a week when stored at 25C.

18. The method of claim 15 further comprising combining the film forming polymer
with release agent to form a low adhesion backsize composition.

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19. The method of claim 18 wherein the low adhesion backsize composition is stable
for more than a week when stored at 25C.

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20. A method of forming a release coating, the method comprising
providing a backsize composition comprising
pre-crosslinked film forming polymer comprising monomeric units
derived from monomer comprising
monofunctional monomer and
multifunctional pre-crosslinking monomer containing at
30 least two reactive groups,

thickener that improves the stability of the backsize composition,
and

release agent,
coating the backsize composition onto a substrate to form a backsize film,
5 and
drying the film to form a dried release coating.